

affiliation) who are running for those positions, and any “ballot measures” seeking citizen referendum. These can be stored and/or accessed on a jurisdictional basis, such as according to geographic division, governmental division, election, and the like.

[0065] In some embodiments, databases **150** can contain a vault database **153**. The vault database **153** is a secure database that maintains the correspondence between voters and the tokens that are assigned to the voters. In some embodiments, the vault can store an alphanumeric voterID for each voter, and store an association between the voterID and an alphanumeric electionID that identifies a particular election and a token that indicates that the voter can vote in that election. In some embodiments, the vault database **153** can also store an electronic postmark® (ePM®) that corresponds to individual voters.

[0066] In some embodiments, databases **150** can also contain a voter-ballot database **154**. The voter-ballot database **154** stores the electronic completed ballots submitted by the voters. In some embodiments, the voter-ballot database **154** can also contain ballots submitted by voters, either via electronic voting through a mobile app or website as described further below, through a mailed ballot, or from a voting machine at a polling place. In some embodiments, the record of votes includes information gathered by a particular state or county’s database. In some embodiments, the voter-ballot database **154** can determine or store information regarding whether if a particular voter has voted more than once based on the identifier received with each ballot or which is associated with each ballot. For example, the voter-ballot database can determine that a particular voter voted both at polling place by receiving a voting identifier from a voting machine at a polling place and by the identifier received a mail-in ballot. The voting can remain anonymous, and only the comparison or match between identifiers will be noted.

[0067] In some embodiments, if the voter-ballot database **154** detects multiple votes, or identifies a match between an identifier from a voting machine at a polling place and an identifier on a mail-in ballot, it can take certain actions. For example, it could flag the voter or ballot for review for fraud or it could prioritize certain types of votes over others. For example, the voter-ballot database **154** may prioritize the polling place vote over a mailed-in ballot or a voting app vote. If there is a match between an identifier from a voting machine and an identifier on a mail-in ballot, or if there is a record of multiple votes from one voter, the mail-in ballot may be discarded. In some embodiments, when this situation is detected, the vote from the voting machine may be discarded in favor of the mail-in ballot. In some embodiments, all voter information can be discarded if there is a conflict between voting for a particular voter or if there are multiple ballots filled out by one voter.

[0068] In some embodiments, the various aspects of the system architecture described in FIG. 1 can operate on or be a component of a processing system implemented with one or more processors. The system architecture may operate on a network of interconnected processors housed on one or more terminals. The one or more processors may be implemented with any combination of general-purpose microprocessors, microcontrollers, digital signal processors (DSPs), field programmable gate arrays (FPGAs), programmable logic devices (PLDs), controllers, state machines, gated logic, discrete hardware components, dedicated hardware

finite state machines, or any other suitable entities that may perform calculations or other manipulations of information. The processors may comprise, for example, a microprocessor, such as a Pentium® processor, a Pentium® Pro processor, a 8051 processor, a MIPS® processor, a Power PC® processor, an Alpha® processor, a microcontroller, an Intel CORE i7®, i5®, or i3® processor, an AMD Phenom®, A-series®, or FX® processor, or the like. The processor or processors typically has conventional address lines, conventional data lines, and one or more conventional control lines. The processor or processors may be in communication with a processor memory, which may include, for example, RAM memory, flash memory, ROM memory, EPROM memory, EEPROM memory, registers, hard disk, a removable disk, a CD-ROM, or any other form of storage medium known in the art. The processor memory may include, for example, software, at least one software module, instructions, steps of an algorithm, or any other information. In some embodiments, the processor or processors performs processes in accordance with instructions stored in the processor memory. These processes may include, for example, controlling features and/or components of the blockchain powered vote by mail system architecture **100**, and controlling access to and from, and transmitting information and data to and from the blockchain powered vote by mail system architecture and the constituent components of the blockchain powered vote by mail system architecture **100**, as described herein.

[0069] The processor or processors that are running vote by mail system architecture can also be in communication with system memory, configured to store information, such as confidence data, item-carrier information, expected deliveries data and the like. The system memory may comprise a database, a comma delimited file, a text file, or the like.

[0070] In some embodiments, the processor or processors is/are connected to a communication feature. The communication feature is configured for wired and/or wireless communication. In some embodiments, the communication feature communicates via telephone, cable, fiber-optic, or any other wired communication network. In some embodiments, the communication feature may communicate via cellular networks, WLAN networks, or any other wireless network. The communication feature is configured to receive instructions and to transmit and receive information among components of the vote by mail system architecture and, in some embodiments, with a central server (not shown) or other resource outside the vote by mail system architecture, as desired.

[0071] In some embodiments, the components of the vote by mail system architecture **100** can operate on a virtual processor and a virtual memory in a cloud based system.

[0072] FIG. 2 displays an object model that demonstrates the interaction between various software objects in a voting software system **200**. In some embodiments, one software object is a voter **201** (“VSO **201**”). VSO **201** is a software object representing any individual who is a US citizen over the age of 18 and meets the state’s residency requirements and/or other voting requirements. In some embodiments, a specific VSO **201** stores data about a specific voter. For example, the VSO **201** can store a voter digital id, a voter name, a voter jurisdiction, a voter permanent mailing address, voter current address, voter verification number, and other voter details. In some embodiments, the VSO **201** also contains voter identification information, such as a